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- (2) Shall not in its operation, function, or malfunction result in any unsafe condition endangering the motorcycle, its rider(s), or persons or property in close proximity to the vehicle.
- (b) Every manufacturer of new motorcycles subject to any of the standards imposed by this subpart shall, prior to taking any of the actions specified in section 203(a)(1) of the Act, test or cause to be tested motorcycles in accordance with good engineering practice to ascertain that such test vehicles will meet the requirements of this section for the useful life of the vehicle.

§86.409-78 Defeat devices, prohibition.

- (a) No motorcycle shall be equipped with a defeat device.
- (b) Defeat device means any element of design which:
- (1) Senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying or deactivating the operation of any part of the emission control system and
- (2) Reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal urban vehicle operation and use, unless
- (i) Such conditions are substantially included in the Federal emission test procedure, or
- (ii) The need for the device is justified in terms of protecting the vehicle against damage or accident, or
- (iii) The device does not go beyond the requirements of engine starting or warm-up.

§ 86.410-90 Emission standards for 1990 and later model year motorcycles.

- (a)(1) Exhaust emissions from 1990 and later model year gasoline-fueled, natural gas-fueled and liquefied petroleum gas-fueled motorcycles shall not exceed (compliance with these standards is optional prior to the 1997 model year for natural gas-fueled and liquefied petroleum gas-fueled motorcycles):
- (i) *Hydrocarbons*. 5.0 grams per vehicle kilometer.
- (ii) Carbon monoxide. 12 grams per vehicle kilometer.

- (2) Exhaust emissions from 1990 and later model year methanol-fueled motorcycles shall not exceed:
- (i) Total hydrocarbon equivalent. 5.0 grams per vehicle kilometer.
- (ii) Carbon monoxide. 12 grams per vehicle kilometer.
- (3) The standards set forth in paragraphs (a) (1) and (2) of this section refer to the exhaust emitted over driving schedule as set forth in subpart F and measured and calculated in accordance with those procedures.
- (b) No crankcase emissions shall be discharged into the ambient atmosphere from any new motorcycle subject to this subpart.

[54 FR 14539, Apr. 11, 1989, as amended at 59 FR 48512, Sept. 21, 1994]

§ 86.410-2006 Emission standards for 2006 and later model year motor-cycles.

(a)(1) Exhaust emissions from Class I and Class II motorcycles shall not exceed the standards listed in the following table:

TABLE E2006-1—CLASS I AND II MOTORCYCLE EMISSION STANDARDS

Model year	Emission standards (g/km)	
	HC	со
2006 and later	1.0	12.0

(2) Exhaust emissions from Class III motorcycles shall not exceed the standards listed in the following table:

TABLE E2006–2—CLASS III MOTORCYCLE EMISSION STANDARDS

Tier	Tier Model year		Emission stand- ards (g/km)	
		HC + NO _X	СО	
	2006–2009 2010 and later	1.4 0.8	12.0 12.0	

- (b) The standards set forth in paragraphs (a) (1) and (2) of this section refer to the exhaust emitted over the driving schedule as set forth in subpart F and measured and calculated in accordance with those procedures.
- (c) Compliance with the $HC+NO_X$ standards set forth in paragraph (a)(2) of this section may be demonstrated

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using the averaging provisions of §86.449.

- (d) No crankcase emissions shall be discharged into the ambient atmosphere from any new motorcycle subject to this subpart.
- (e) Manufacturers with fewer than 500 employees worldwide and producing fewer than 3,000 motorcycles per year in the United States are considered small-volume manufacturers for the purposes of this section. The following provisions apply for these small-volume manufacturers:
- (1) Small-volume manufacturers are not required to comply with the Tier 1 standards applicable to Class III motorcycles until model year 2008.
- (2) Small-volume manufacturers are not required to comply with the Tier 2 standards applicable to Class III motor-cycles.
- (3) Small-volume manufacturers are not required to comply with permeation requirements in paragraph (g) of this section until model year 2010.
- (f) Manufacturers may choose to certify their Class I and Class II motorcycles to an HC + NO_X standard of 1.4 g/km instead of the 1.0 g/km HC standard listed in paragraph (a)(1) of this section. Engine families certified to this standard may demonstrate compliance using the averaging provisions of §86.449.
- (g) Model year 2008 and later motorcycles must comply with the evaporative emission standards described in 40 CFR 1051.110. Manufacturers may show compliance using the design-based certification procedures described in 40 CFR 1051.245. Manufacturers may comply with the tank permeation standards using the averaging provisions in 40 CFR part 1051, subpart H, but may not include any motorcycles equipped with metal fuel tanks in their average emission level. Manufacturers may not average between highway motorcycle engine families and recreational vehicle families.

[69 FR 2436, Jan. 15, 2004, as amended at 70 FR 40434, July 13, 2005]

§86.411-78 Maintenance instructions, vehicle purchaser.

(a) The manufacturer shall furnish or cause to be furnished to the ultimate purchaser of each new motorcycle the

- written instructions for the periodic and anticipated maintenance and use of the vehicle by the ultimate purchaser as may be reasonable and necessary to assure the proper functioning of emission control systems for the vehicle's useful life.
- (1) Such instructions shall be provided for those vehicle and engine components listed in appendix VI to this part (and for any other components) to the extent that maintenance of these components is necessary to assure the proper functioning of emission control systems.
- (2) Such instructions shall be in the English language and in clear, and to the extent practicable, nontechnical language.
- (b) The maintenance instructions required by this section shall:
- (1) Contain a general description of the documentation which the manufacturer will require from the ultimate purchaser or any subsequent purchaser as evidence of compliance with the instructions, and
- (2) Specify the performance of all scheduled maintenance performed by the manufacturer under §86.428.

§ 86.412-78 Maintenance instructions, submission to Administrator.

- (a) Instructions for ultimate purchaser. (1) The manufacturer shall provide to the Administrator, at least 30 days before being supplied to the ultimate purchaser (unless the Administrator consents to a lesser period of time), a copy of the maintenance instructions which the manufacturer proposes to supply to the ultimate purchaser. The instructions must include the periodic and anticipated maintenance contained in the application for certification or contained in the manufacturers' records (if anticipated sales are less than 10,000 units). Such instructions must be reasonable and necessary to assure the proper functioning of the vehicle's emission control systems.
- (2) Any revision to the maintenance instructions which will affect emissions shall be supplied to the Administrator at least 30 days before being supplied to the ultimate purchaser unless the Administrator consents to a lesser period of time.